

## MODULAR REFORMER WITH ENHANCED HEAT RECUPERATION

### ABSTRACT

The thermal reformer system (1) is provided that compromises a planar assembly including a reformer zone (5), a combustion zone (6), and various inlet and outlet manifolds with associated fluid flow passages (11, 20). The reformer system further compromises an inlet combustion fluid flow passage (31) connecting an inlet combustion fluid manifold (30) and the combustion zone (6), and an outlet combustion fluid flow passage (41) connecting the combustion zone (6) and the outlet combustion fluid manifold (40). In the thermal reformer system the heat transfer and recuperation from outlet fluid flows is efficiently transferred to inlet fluid flows, in order to minimize heat loss and insulation requirements.